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GEOGRAPHY CURRICULA FOR COMPULSORY EDUCATION IN 11 EUROPEAN COUNTRIES – COMPARATIVE ANALYSIS

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Summary *– The paper analyses and compares the geography curricula for compulsory education in 11 European countries: Sweden, Finland, Norway, England, Scotland, Ireland, The Netherlands, Germany, Austria, Slovenia and Hungary. The analysis[1] answers questions concerning the length of compulsory education, the name of the subject, the description or definition of the subject, the organization of the subject, its position in the curricular area, the aims of the subject, classes and education cycles, compulsory or elective subject, schedule of teaching periods (per week and per school year), methodological guidelines, teaching conditions, evaluation, trends and recommendations for Croatia.*

Key words: *Curriculum, curriculum structure, geography, curricular area, schedule, methodological guidelines, evaluation*

Introduction

Over the past decade numerous significant European and local documents have been written about the issue of quality of education as an important element of overall social development (Baranović 2006a, b; Marušić 2006a, 181). The increasingly present declarative approach is directed towards the student, i.e. the ap-

1 The analysis of geography curricula was conducted by the following staff members of the Geography Department: Neven Bočić, assistant lecturer – scientific novice, Prof. Zoran Curić, Prof. Borna Fürst Bjeliš, Dr.Milan Ilić, Martina Jakovčić, assistant lecturer – scientific novice, Jelena Lončar, assistant lecturer – scientific novice, Aleksandar Lukić, assistant lecturer – scientific novice, Dr. Danijel Orešić, Vedran Prelogović, assistant lecturer – scientific novice, Dubravka Spevec, assistant lecturer – scientific novice, Ružica Vuk, MSc, and Ivan Zupanc, assistant lecturer – scientific novice.

proach to learning is compatible with the needs of the student. Despite this, studies that systematically consider the point of view of a student's perception of school and school curricula are few and far between, thus implying the low number of studies examining the student perception of geography as a school subject. The results of the empirical part of a 2003 survey conducted among 2674 pupils attending the 8th grade of primary school, within the project entitled Evaluation of Teaching Programs and Development of Curriculum Models for Compulsory Education in Croatia, has shown that, among 13 subjects, geography was highly ranked according to the following criteria: how interesting, understandable, difficult, useful and important it is in life (Marušić 2006b).[2]

There have been many papers written about geography as a school subject in Europe, for example in Slovenia. In this country, scientific and professional journals do not dedicate much space to geography. Topics that are most popular include analysis of changes in teaching programs, ways of work, teaching aids and teaching methods for geography.[3] Human potentials have also been analyzed for teaching geography, as well as the views of geography teachers and professors on teaching programs, textbooks and evaluation.[4]

Since compulsory education does not start at the same chronological age in all countries, unified principle in comparison is not possible. Due to those differences for some countries data on expected attainments are presented according to chronological age, while for the other countries results are presented according to the level of education or grade.

An analysis of national curricula of 11 European countries indicates that, according to its representation in the curricula, geography is an important subject in the educational systems of European countries, as well as in Croatia. The status of geography as a subject differs in the curricula of certain countries according to its place in the curriculum, its organization (independence/integration), the duration of education, the number of teaching periods. There are fewer differences concerning the name of the subject, the level of its being compulsory, education-

2 According to how interesting geography is students place it in 4th place after physical education, foreign languages and biology; according to understandability it is in 3rd place behind physical education and religion; according to difficulty it is in 8th place behind mathematics, chemistry, Croatian, physics, foreign language, history and biology; according to usefulness in the present it is in 5th place following foreign language, mathematics, physical education and Croatian; according to how useful students think it will be in the future it is in 4th place following foreign language, mathematics and Croatian.

3 Brazda (1986), Brinovec (1990, 1991, 2004), Cigler (1993), Curić (2001a, b, 2003), Curić, Glasnović Horvat (2003), Kolenc-Kolnik (1995, 1996a, b, c, 1997, 2001a, b, 2002, 2004), Kunaver (1993, 1996, 2001, 2005), Matas (1990, 1991, 1995, 1996), Senegačnik (2005, 16-91) and others.

4 Curić, Vuk and Milić (2007). Viewpoints of teachers and professors of geography on teaching programs, textbooks and evaluation have been analysed in three projects for the Open Society Croatia. The results have not been published.

al goals and content. In most analyzed curricula geographical content is taught in early primary school as a part of an integrated subject. Geography is an independent subject in Slovenia, Hungary, Germany, Norway, The Netherlands, Scotland and England, while it is an integrated subject in later primary school in Ireland (with history), Austria (with business) and Finland (with biology), thus emphasizing the openness of the geography curriculum. In Croatia, geography is independent in primary school (grades 5-8) and in all types of secondary school (grammar school, commerce, secondary vocational).

In order to understand the position and role of geography it is important to point out its position in the curriculum. In eight countries geography is placed both in the natural sciences and social areas. In Sweden and Germany it is only in the social area, while in Finland it is only in the area of natural sciences.

Croatia is in the process of designing a national curriculum for compulsory education. This process requires knowledge of both the European experience in curriculum design and its structure and tradition in Croatia. This comparative analysis is a contribution to learning about European experiences.

Analysis of Geography Curricula in 11 European Countries

The analyzed curricula have been placed in three groups. The first includes the curricula of Norway, Sweden and Finland, the second comprises the curricula of England, Ireland and Scotland, while the third includes the curricula of Austria, Hungary and Slovenia. The German and the Dutch curricula have not been grouped due to conceptual differences.

Group A: Sweden, Finland, Norway

Sweden[5]

Together with *History*, *Religious Studies* and *Society (civic education), Geography* in is part of the area *Social Studies*. The geography curriculum is in the social area. During the first nine grades of education[6] geography is a compulsory subject. Particular emphasis is placed on the modernization of teaching content and the application of various teaching methods and forms of work.

The curriculum includes the goals of the subjects, as well as student proficiency at two levels: at the end of grade 5 and the end of grade 9.

5 Curriculum for the Compulsory School, The Pre-School Class And The Leisure-Time Centre (Lpo 94), Ministry of Education and Science in Sweden and National Agency for Education, 2001. Compulsory school Syllabuses, National Agency for Education, 2001.

6 Compulsory education includes 5 years of primary and 4 years of lower secondary school.

Aims and expected students' attainments in geography in Sweden	
Aims of the subject	• Developing knowledge, understanding and preparing for various issues related to the relationship of man and his environment. • Strengthening the perception of space and spatial relations, creating a basis for getting to know various places and areas, as well as their locations. • Developing the ability to notice the connections and relations of various segments of man's environment. • Developing understanding of the environment in general. • Understanding the significance of sustaining and the balanced use of resources and their influence on the environment. • Adopting and accepting a sense of responsibility for safeguarding the environment with the aim of ensuring sustainable development. • Developing the ability of using various information sources and adopting knowledge by way of perception, analysis, examination and investigation. • Being able to give arguments to support one's point of view in debates, accepting others' opinions and viewpoints.
Students' attainments at the end of grade 5	• To acquire basic knowledge of geography and knowing how to explain the influence of basic human activities on the environment. • To acquire knowledge on geographical maps and the globe, as well as the skill of using geographical maps and globes. • To know how to determine the position of certain locations on the globe and on maps. • To be able to determine the position of certain areas in relation to others and assess the distance between them. • To know the main forces that formed the Earth's surface and processes changing its appearance; based on this, and using their own perception and experience, to give examples of such changes from their own environment. • To know the basic characteristics of certain areas in Sweden, their differences and particularities; to be able to describe how people lived and worked there in the past and how they do in the present day. • To know the concepts of weather, climate and the seasons and understand their roles; to be able to explain their spatial differences, to observe and measure climactic elements.
Students' attainments at the end of grade 9	• To know the world map and the more important localities, locations and size relations. • To be able to locate the more important localities on the globe. • To make independent conclusions about natural characteristics, cultural landscape and living conditions of people on the basis of comparison and examination of maps. • To understand what natural resources are and observe the connection between natural resources and human activities. • To be able to explain the influence of human activities on the environment and provide examples; to understand the importance of environmental protection. • To understand the influence of certain factors on living conditions in various areas of the world. • To know the activities and way of life people have in various parts of the world.

	• To know and to be able to explain and illustrate how important social processes and certain activities (such as industrialization, urbanization, globalization, communications, manufacturing, trade, etc.) affected and affect the landscape, environment and living conditions of people; to be able to discuss issues related to the aforementioned. • To know and to be able to collect geographical information, carry out measurements and make notes, draft maps and other graphic displays. • To acquire the skills of comparison, analysis and presentation of characteristics of certain areas in oral and written form based on collected geographical information.

The prescribed minimum of teaching periods[7] for the said *social subjects* is 885, which accounts for 13.3 % of the overall number of teaching periods during a nine-year education period. Aside from the prescribed minimum, another 600 hours is earmarked for non-compulsory subjects, which the student may chose one or more subjects according to his/her interests. One teaching period is 60 minutes.

In Sweden, teachers are allowed to create their own organization of teaching and select teaching methods. They are not specified in the analyzed documents. Successfulness is assessed on and scale of 1-3: pass, pass with merit and pass with special merit. The grade represents the level reached by students in relation to the established aims of the teaching program of a subject or groups of subjects.

Finland[8]

In Finland, geographical content is taught in grades 1-4 as part of an integrated group called *Nature and the Environment*. In grades 5 and 6, geography is taught within the framework of a course called *Biology and Geography*. In grades 7-9 geography is an independent subject. Here, geography is within the framework of natural sciences, while at higher levels it is part of both the natural sciences and social curricular areas, and it represents a bridge between natural sciences and social humanistic ways of thinking. Geography is a compulsory subject, as well as an elective subject in compulsory education for students no longer within the compulsory education age bracket. Compulsory education lasts for 9 years.

7 The Swedish Government prescribes only the minimum number of teaching periods for each subject during nine years of education, as well as education goals that must be reached be the end of education year 5 and year 9. The minimum number of teaching periods means the least amount of hours a student spends in class under the supervision of a teacher (independent work is not included). The school board determines the teaching period schedules according to their own plan over a nine-year education period with the obligatory achievement of prescribed goals. The school may, within established limits and for certain subjects, increase the schedule from the said minimum, thus achieving a profile or specialization.

8 National Core Curriculum for Basic Education 2004, Finish National Board of Education, Helsinki 2004.

The Finnish curriculum places particular emphasis on cross-curricular themes which facilitate a complex approach to problems and linking theory and practice. The general curriculum contains themes and it is up to the teachers of various subjects to make those themes fit into subject curricula. The cross-curricular themes given in the general curriculum are Growth as a person, Cultural identity and internationalism, Media skills and communication, Participatory citizenship and entrepreneurship, Responsibility for the environment, wellbeing and sustainable future, Safety and traffic, Technology and the individual.

The curriculum includes subject aims and student attainments in knowledge and skills at the end of grades 4, 6 and 9. The general aim of the subject is the development of basic geographical concepts of the world, responsibility towards natural wealth and the environment, awareness of the diversity of natural and cultural environments in the world, as well as the creation of foundations for intercultural tolerance and internationalism.

Based on the available information it is impossible to establish the exact number of teaching periods per week in all educational phases. In grades 5 and 6, *Geography and biology* accounts for 3 hours per week, while in grades 7 to 9 there are 7 hours of *Geography* per week.

Just like in the other countries from this group, Finland puts particular stress on the necessity to modernize teaching contents, on the use of various teaching methods and forms of works and on investigatory and problem-solving approaches in teaching.

In teaching geography, teachers are encouraged to use various pictorial and cartographic materials, graphic illustrations that contribute to the visualization of teaching content and various textual materials. The use of contemporary computer technology and multimedia methods of presentation with tools such as LCD projectors and the Internet is also encouraged. Furthermore, field work is also part of the teaching methods used. There are no particular directions regarding evaluation.

Norway[9]

In Norway, geographical content is covered within the framework of two subjects: *Geography* and *Natural diversity*[10]. Grades 1-4 have *Geography* as an integrated subject as part of *Social studies*[11], while it is an independent subject in grades 5-10. The content of *Geography* is placed in the social curricular area, while the content of *Natural diversity* is in the natural sciences curricular area.

9 The curriculum for the 10-year compulsory school in Norway, The Royal Ministry of Education, Research and Church Affairs, 1999.

10 The subject *Natural diversity* is within the framework of the curricular area of *Science and environment*.

11 The area of *Social studies* is divided into *Geography*, *History* and *Social sciences* after 5 years of education.

During all ten years of education[12] the subject is compulsory. The aims of the subject and expected students' attainments are listed according to educational cycles and for each individual grade. The aim of geography instruction in Norway is to acquaint the students with the natural-geographical and social-geographical characteristics and specific features of Norway including its cultural heritage in order to develop national consciousness, while simultaneously stimulating students to get to know other cultures and traditions in order to thwart prejudice and discrimination. Particular emphasis is placed on developing creative and critical thinking that should enable students to take over active roles in society.

Based on the analyzed documents it is impossible to determine the exact number of teaching periods dedicated to geography. Namely, the available documents only outline overall teaching periods for *Social studies* according to the following schedule: 1. lower primary school 190; 2. higher primary school 285; and 3. lower secondary school 380 teaching periods. One teaching period lasts 45 minutes.

Just as is the case in other countries from this group, Norway's curriculum stimulates the use of various teaching tools and methods, as well as the use of computers in class. The following guidelines concerning evaluation are given: during class it is necessary to encourage self-assessment among students, to continuously observe the work of students without grading them and to use descriptive evaluation.

Group B: Scotland, Ireland, England

Scotland[13]

Geography instruction in Scotland is organized as an independent subject called *Geography. Geography* is taught in cycles at all levels of compulsory and non-compulsory education, namely: from ages 3-5, in primary education for ages 5-12, in lower secondary school 12-16 and in non-compulsory education in higher secondary school for ages 16-18. In primary education, geography is taught within the framework of the curriculum for natural sciences, while in secondary school it is part of both the natural sciences and social curricular areas. Geography is compulsory in all cycles of education. The curriculum stipulates the general aims of the subject: to gain knowledge about social and natural factors that affect human lives, to develop an understanding and acceptance of other people, nations and cultures, to develop the awareness of the importance of making quality decisions

12 Education in Norway can be divided into three levels: 1. lower primary level/primary stage from grades 1-4; 2. upper primary level/intermediate stage from grades 5-7; 3. lower secondary school/secondary stage from grades 8-10 (Source: http://www.norway.ph/education).

13 The Structure and Balance of the Curriculum, 5–14 National Guidelines, Learning and Teaching Scotland, 2000.

relating to space and the environment, to understand the importance of personal rights and obligations as well as of active citizenship and to accept the multicultural nature of society.

Methodological guidelines and conditions for teaching are not specifically mentioned. Evaluation is a crucial part of the process that assesses the success of teaching and learning in relation to the aims of learning. Evaluation is in the function of linking two learning cycles. Successful evaluation is: one that uses clearly understandable criteria for teaching and learning and is open to control; creates and promotes discussion; facilitates the participation of all decision-making stakeholders; creates a foundation for preparing reports that confirm the credibility of the school in the local community.

Ireland[14]

In Ireland, geography is taught as an independent subject called *Geography* up to grade 6, while it is an integral part of the *History and geography*[15] subject in grades 6-9. At the first level of education *Geography* is a part of both the social and natural sciences curricular area[16]. At the second level, geography is an integrated subject in the area of *Social, environmental and scientific education*. Geography is compulsory for all students 6-12 years of age (grades 1-6), as well as at the junior-infant level (4-5 years of age) and the senior-infant (5-6 years of age), inasmuch as children in those age groups enrol in school. Although compulsory education in Ireland starts after a child turns six years of age, most kids begin attending school at the age of 4 or 5. Despite the recommendation of the National Curriculum Board of Ireland to make geography compulsory at the level of post-primary education, some schools still have is listed as non-compulsory.

Along with the aims of the subject, the curriculum also includes expectations for students' attainments for each educational cycle. The general goal is to acquire knowledge on natural-geographical and social-geographical processes and phenomena at the local, regional and international levels, as well as the awareness of the interdependence of the said processes, to develop skills and abilities needed for geography class and in everyday life, to raise the awareness about the environment and the need to protect it, and to develop the ability to partake in active and responsible civic life. Geography instruction in Ireland emphasizes the need to make the teaching content relevant for the life of today. Each teacher has

14 www.inca.org.uk (International Review of Curriculum and Assessment Frameworks Internet Archives); March 2005.
www.education.ie (Department of Education and Science of Republic of Ireland); March 2005.
www.ncca.ie (Primary School Curriculum); March 2005.
Primary School Curriculum, The Stationery Office, Dublin, 1999.

15 Classes in Ireland are organized at two levels: 1. Primary school education (from grade 6, i.e. from ages 11-12); 2. Post-primary education (Junior Cycle; grades 7, 8 and 9).

16 Social, environmental and scientific education.

the freedom to choose new current events. Teachers are motivated to use diverse teaching methods and forms of work.

The basic teaching units for junior/senior infants are on the level of the environment and awareness of environmental protection and caring for it. A spiral approach is recommended; the same themes are covered in higher grades, but in more depth. Activities are based on local issues in order to enable students to investigate and get to know the area first hand.

At the first level a teaching period is 30 minutes. There is no precise number of teaching periods for geography in Ireland; however the recommendation of the National Curriculum Board is that "junior infants" and "senior infants" have no less than 2 hours and 15 minutes, while in grades 1-6 there should be 3 hours of geography per week. The second level also has no determined minimum for geography, but the recommendation is that is should account for at least 10% of the compulsory weekly timetable. The overall prescribed weekly timetable is 35-42 teaching periods with one teaching period being 35-45 minutes.

Methodological guidelines and teaching suggestions similar in content to those found in the Scandinavian countries represent an integral part of the curriculum.

At the first level of education teachers regularly observe and assess the progress of each student. Furthermore, at the end of each year students take standardized tests. In the next education level students can carry out field research as a part of the final exam as a part of the written exam. In such a case, the written part of the exam makes up 80% of the final assessment, whereas the field research accounts for the remaining 20% of the exam. According to the recommendations of The National Curriculum Board the final grade should include: teacher's notes and observation of the student, tests and tasks, projects and final standardized tests, taken at the end of each school year.

England[17]

In England, geography classes are organized as part of an independent subject called *Geography.* The school curriculum also includes the subjects called *Education for sustainable development* and *Civil rights,* which contain topics that are recommended for geography classes. The curriculum for geography also represents a link between the natural sciences and social curricular areas. Throughout compulsory education geography is a compulsory subject taught in primary (Key stages 1 and 2) and secondary (Key stage 3) school[18].

17 About the National Curriculum for England, 1999, Department for Education and Employment, London and Qualification and Curriculum Authority, London, http://www.nc.uk.net
www.standards.dfes.gov.uk
www.qca.org.uk/geography
www.woodlands-junior.kent.sch.uk/customs/questions/education.html

18 Primary school includes two levels (Key stage 1 and 2): 1. Infant school from ages 5-7, 2. Junior school from ages 7-11. Key stage 3 includes Secondary school and lasts from ages 11-16.

The methodological guidelines for teaching geography are similar to those in Scandinavian curricula, with a particular accent on the correlation between geography and other subjects, so as to develop holistic knowledge and understanding among students.

Aims of Geography Teaching in England	
Aims of the subject	• Developing interest among students for studying the area (local, national and overseas), investigating human-spatial relations, teach students how human activities affect the environment and how the environment affects humans. • Encouraging students to study their environment and the differences between social and natural conditions on Earth, encouraging investigation and learning about natural and social characteristics of the students' environment. • Learning to accept and acknowledge differences considering other areas, nations and cultures. • Developing and using geographical research methods including field work, using geographical terms, geographical maps and photographs. • Developing awareness about the need to care for the environment and the future of human habitats on Earth, increasing the level of responsibility of students for the Earth and the people living on it.
Knowledge, skills and understanding in the English curriculum	
Collecting geographical information	• Asking geographical questions (Where is something? What does it look like? How did it get that way? How and why does it change?). • Collecting data. • Analysing and evaluating of data and making conclusions. • Understanding the influence of human viewpoints and opinions on political, social and economic events, as well as the formation of own viewpoints. • Presenting viewpoints and investigation results.
Developing geographical skills	• Using geographical vocabulary. • Choice and use of appropriate fieldwork techniques. • Using atlases, globes, maps and plans. • Choice and use of secondary sources of information. • Drawing maps and plans, at a range of scales. • Presenting conclusions in the most appropriate form. • Developing decision-making skills.
Knowledge and understanding of places	• Getting acquainted with significant localities on the national and global levels, with the addition of current affairs. • Describing how places fit within a wider geographical context – the national, international and global levels. • Describing and explaining the characteristics of a certain area. • Exploring the idea of global community and links among certain areas.
Knowledge and understanding of processes	• Understanding collocation between natural and social characteristics of a certain area. • Determining, describing and understanding physical and social processes and their influence on the environment and places in general.

Knowledge and understanding of environmental change and sustainable development	• Describing and explaining environmental changes such as erosion, etc. and proposing ways to solve such issues. • Researching the idea of sustainable development and recognizing the importance of such development for people and space. • Understanding our roles in sustainable development.

It is not possible to determine the weekly or annual number of teaching periods dedicated to geography from the available documents, since the teacher and the school decide about it. It is important to work on the above themes to meet the necessary levels as per curriculum (*Key Stages 1-3*). Hence, schools chose for themselves how to organize their own school-based curricula.

Teaching conditions are not strictly prescribed, rather the conditions under which teaching is carried out are taken into consideration, the type of school the teaching is being held in, as well as the arranged number of teaching periods dedicated to geography. This is all determined on the school level as per agreement among school staff.

Students' attainments at the end of each level are evaluated according to eight levels of achievement (attainment levels), according to how challenging themes are. Above the eighth level there is an extra level called exceptional performance, assessed through descriptive evaluation.

Level	Students' attainment targets for geography
1	• Students demonstrate their knowledge, skills and understanding at a local scale. • They recognize physical and social features of localities. • They express their views on features of the environment of a locality. • They use resources that are given to them and their own observation for presenting their viewpoints on their environment.
2	• Students demonstrate their knowledge, skills and understanding at a local scale. • They describe and compare physical and human features of various areas. • They show an awareness of places beyond their own locality. • They understand how people affect the environment. • They begin to use appropriate geographical vocabulary.
3	• Students demonstrate their knowledge, skills and understanding at a local scale. • They describe and compare physical and human features of their local area and offer explanations for the locations of some of those features. • They are aware of similarities and differences between certain areas. • They recognize how society is trying to preserve the environment. • They use geographical terminology in their presentations.

4	• Students demonstrate their knowledge, skills and understanding at a higher level. • They begin to recognize geographical processes and become aware of the significance of the positions of certain places, rather than just their locations. • They understand how social activities affect the environment. • They use geographical skills when investigating places and environments. • They use primary and secondary sources of information.
5	• Students demonstrate their knowledge, skills and understanding at a higher level. • They recognize and begin to explain geographical processes and to describe how the said processes affect and cause similarities or differences between certain areas. • They explain the influence of human activities on the environment. • They explain their own viewpoints and begin to suggest relevant geographical issues. • They independently select their own sources of information, suggest solutions and present their findings, both graphically and in writing.
6	• Students demonstrate their knowledge, skills and understanding at all scales from local to global. • They explain geographical processes and recognize their interaction which produces the distinctive characteristics of places. • They understand and compare various approaches to managing environments. • They appreciate the existence of differing values and viewpoints. • They use various skills and sources of information. • They present their findings and reach conclusions based on collected data.
7	• Students demonstrate their knowledge, skills and understanding at all scales from local to global. • They describe the interactions between processes and show methods of how those interactions affect an area. • They understand that people's actions in a certain area may affect other areas. • They understand that human activities may have unintended environmental consequences. • They draw on their knowledge and information sources when approaching research issues. • They evaluate critically sources of evidence and clearly present their findings and begin to reach substantiated conclusions.
8	• Students demonstrate their knowledge, skills and understanding at all scales from local to global. • They offer explanations for the connections between certain physical and social processes. • They describe changes in the characteristics of places over time, in terms of location, physical and human processes, and interactions with other places. • They understand the complexity of factors that contribute to the quality of life and become aware of differences between levels of development in certain areas. • They understand the importance of sustainable development and are aware of how humans affect the environment and vice versa. • They are capable of giving examples to support their views. • They use various skills, critical approaches and sources during their presentations. • They present their findings clearly and understandably and reach substantiated conclusions.

Exceptional performance	• Students demonstrate their knowledge, skills and understanding at all scales from local to global. • They offer explanations to complex interactions within and between certain physical and human processes. • They refer to a wide range of geographical factors to explain and predict change in the characteristics of places over time. • They assess the influence of people on the environment in a complex way and offer potential approaches and solutions. • They draw selectively on geographical theory and use accurately various geographical methods and skills. • They carry out geographical investigations independently. • They evaluate critically sources of evidence and present coherent arguments and effective, accurate and well-substantiated conclusions. They evaluate their work by suggesting improvements in approach and further lines of enquiry.

Group C: Austria, Hungary, Slovenia

Austria[19]

In Austria, geographical content is taught within an independent subject called *Geography and economy.* The subject belongs to the natural sciences and social studies curricular areas. *Geography* is a compulsory subject taught from grades 1-4.

The approach used in teaching geography in Austria moves from the general to the specific, thus grades 1-2 cover basic knowledge that is further developed in grades 3-4, using examples from Austria, Europe and the rest of the world. In grades 1-4 Austria is compared to other European countries and the world, while in grade 3 Austria is the main topic. Three principal themes covered over four years of schooling are: Austria, the centre-periphery relationship, and the market with economic development.

Aims and expected students' attainments in geography in Austria	
Aims of the subject	• Learning the basic terms of the creation of natural-geographical and social-geographical foundations and their interdependence. • Explaining climactic changes and how they affect the environment. • Accepting the view that people must have a responsible relationship towards the environment. • Developing the skills of using geographical maps and orientation in space.

19 Lehrplan der Volkschule – Bundesministerium fuer Bildung, Wissenschaft und Kultur, Wien, 2001, http://www.bmbwk.gv.at/
Lehrplan AHS – Bundesministerium fuer Bildung, Wissenschaft und Kultur, Wien, 2000, http://www.bmbwk.gv.at/
Hauptschulen HS Lehrplan – Bundesministerium fuer Bildung, Wissenschaft und Kultur, 2000, 2003, http://www.bmbwk.gv.at/

	• Developing of spoken and written skills through seminar work, presentations, discussions and group work. • Learning how to use simple methods of geographical investigation: mapping, statistic and graphic methods, use of various resources and statistics. • Applying the acquired knowledge to other school subjects and in everyday life. • Developing awareness of the social, economic, political and cultural differences in Europe and the world (tolerance towards other religions, nations, races), Austria's role in Europe and the world. • Recognizing the role of multinational companies in creating the world economy. • Recognizing the significance of technological development for the economy and the environment.

Just as in other countries, teachers are encouraged to use diverse teaching methods and forms of work, as well as various teaching tools and aids (geographical maps, aerial photos, satellite photos, graphic representations of textual materials, transparencies, slides, video clips, TV programs, audio recordings, radio programs, etc.). Modern computer technology and multimedia presentations are used along with the Internet. Students are encouraged to use various forms of work, such as independent investigation, working with a partner, working in groups, discussion, preparation for independent presentations, field work, project work, learning through the teaching process, etc. Modern aids and materials bring students closer to distant parts of the world and explain processes and phenomena.

The curriculum only gives general guidelines for student assessment in all subjects.

Hungary[20]

In Hungary, geographical content is taught as a subject called *Nature* in grades 5 and 6 and as a subject called *Our world and Environment* in grades 7 and 8. Both subjects are compulsory. *Our World and the environment* is part of the natural sciences and social studies curricular areas. There are three basic goals in the national curriculum pertaining to the desired achievements: knowledge, skills and minimum competence.

Aims and expected students' attainments in geography in Hungary

20 Framework Curricula for Primary Education, on behalf of Ministry of Education Dinasztia Publishing Company, Budapest, 2000

Aims of the subject	• Understanding geographical reality. • Developing students' skills which will enable students to participate actively in solving problems in their local communities, regions, country and the world. • Understanding local, regional, and global issues. • Developing the students' national and European identity, developing their patriotic feelings while respecting other nations and cultures. • Developing the awareness on cause-effect connections between development and society that change in space and time. • Understanding the need for associating and cooperation in order to solve developmental issues.

The number of geography teaching periods in grade 7 is 56, while 55 teaching periods are reserved for geography in grade 8. Within compulsory education there is a total of 111 teaching periods of geography.

The methodological guidelines and conditions for teaching are similar to the Austrian curriculum. Evaluation includes checking and assessing students' knowledge and the application of knowledge in school and everyday life. Forms of checking and assessment include oral and written examinations (knowledge, understanding, application, analysis, synthesis, assessment).

Slovenia[21]

In Slovenia, geography is taught as an independent subject called *Geography.* It is in the natural sciences and social studies curriculum areas. Compulsory education in Slovenia includes 9 grades with geography being compulsory in grades 6-9.

In Slovenia, geography is defined as a subject that helps students acquire knowledge, abilities, skills and educational values that will help them get through life, understand their immediate and distant environments and properly value the environment. It is emphasized that geographical knowledge is an integral part of basic education because it includes understanding the homeland and the world, as well as environmental protection and its purposeful management. Geography instruction offers the basis for understanding the relations between people and nature, with particular reference to understanding the environment. The role of school geography is to develop students' interest in events in one's own and other's localities and to encourage responsible decision-making regarding important issues such as the protection of a healthy environment.

The curriculum suggests various teaching methods and forms of work, teaching aids, problem approaches, as well as correlation, cross-curricular themes and interdisciplinarity. The selection and combination of teaching methods and forms of work is left to the teachers, who have to take under consideration the interests and abilities of students.

21 Veljavni učni načrti, http://www.mszs.si/slo/solstvo/os/ucni_nacrti/os/9letna/ucni_nacrti/skupni_predmeti.asp, February 2005.

Aims and expected students' attainments in geography in Slovenia	
Aims of the Subject	• Acquiring basic knowledge on natural-geographical and social-geographical processes and phenomena on the local, regional and global levels and their interdependence. • Understanding the value and uniqueness of the Slovenian province, developing love and respect for Slovenian natural and cultural heritage, as well as belonging to the Slovenian state (patriotism). • Developing abilities to present geographical knowledge in oral, quantitative and graphic form with the aid of contemporary teaching materials and aids. • Understanding the importance of the appropriate use of natural wealth and, in connection to this, preserving the environment for future generations. • Understanding the role of minorities as a bridge between nations exemplified through Slovenia and its neighbouring countries where there are Slovenian residents. • Understanding the wealth of human diversity on Earth and respecting that diversity (tolerance towards differences in religion, race, language and customs). • Developing the ability for independent education by means of various sources like: textbooks, exercise books, literature, atlases, lexicons, dictionaries, encyclopaedias, the Internet and other computer programs.
Students' achievements at the end of grade 6	• Getting to know the continents and seas with their distribution. • Knowing the basic laws of positions and motion of the Earth in the universe. • Understanding the consequences of rotation and revolution on the lives of people. • Acquiring knowledge on heat and height zones and how they affect life. • Mastering the skills of using maps and orientation. • Distinguishing the basic shapes of relief and their influence on the lives of people. • Understanding how people influence the environment.
Students' achievements at the end of grade 7	• Learning about the basic natural-geographical and social-geographical characteristics of Europe and Asia.
Student achievements at the end of grade 8	• Learning about the basic geographical characteristics of America, Africa, Australia and the Polar Regions. • Raising awareness about numerous issues, such as food supply, water, energy, political conflicts, etc. • Developing awareness and respect for the wealth and diversity of natural and cultural localities all over the world and creating a foundation for intercultural tolerance and internationalism. • Raising awareness about the need to value and preserve one's own culture.
Students' achievements at the end of grade 9	• Exploring the geographical characteristics of Slovenia. • Raising awareness about the need for environmental protection and learning about the negative consequences human activities can have. • Raising awareness about the existence of national minorities in Slovenia and Slovene minorities in neighbouring countries, as well as the awareness about equality and respect for all nations and cultures.

Teaching periods for geography are precisely prescribed per grade. In grade 6 geography is taught one teaching period per week, in grade 7 there are 2 teaching periods per week, in grade 8 there are 1.5 teaching periods per week, while in grade 9 there are 2 teaching periods of geography per week. There is a total of 221 teaching periods of geography taught during compulsory education.

Geography teaching includes no less than one field trip and two field exercises. Various exercises are planned for field trips that include orientation, mapping and developing the skills of investigation, analysis and synthesis.

Evaluation includes the assessment of knowledge and of the application of knowledge in school and in real life. Students' knowledge is an indicator of the successfulness of teachers. Forms of assessment include oral and written exams (knowledge, understanding, application, analysis, synthesis and evaluation).

Group D: The Netherlands[22]

In The Netherlands, Geography is taught as an independent compulsory subject called *Geography.* Teaching is organized in four cycles with the fourth being non-compulsory, whereas the first three are compulsory[23].

The main characteristic of education in The Netherlands is the autonomy of schools. Each school designs a general plan from which operative plans are developed each year, with curricula for each subject. Operative plans are passed by the authorized Inspectorate. Schools are assisted in designing their curricula by the *National Institute for Curriculum Development* through so-called *Field Advisory Groups*.

The principal task of teaching geography is to acquaint students with the spatial organization of various spatial units and to point out the consequences of human activities for the environment. Depending on their age and level of education, students are stimulated to observe and describe, recognize, explain, draw conclusions and use their acquired knowledge.

The general goals of teaching geography are divided into the domain of geographical perspective, the domain of spatial organization and the domain of topography and maps.

Aims and expected students' attainments in geography in The Netherlands	
Domain of geographical perspective	• Learning about social phenomena and how they affect the physical environment. • Recognizing spatial consequences of those phenomena on maps and the forms of their distribution.

22 Attainment Targets for Compulsory Education, http://www.minocw.nl/english/education/doc/Kerndoelen_basisonderwijs_Engels.doc veljača, 2005.

23 The cycles are: 1. first cycle: non-compulsory education for ages 4-5; 2. Second cycle: compulsory primary education for ages 5-12; 3. Third cycle: compulsory (lower) secondary education for ages 12-16; 4. Fourth cycle: non-compulsory (higher) secondary education for ages 17-18.

Domain of spatial organization	• Recognizing the basic elements of organization and their physical environment. • Realizing potential possibilities for settlement in flooded regions. • Describing the spatial distribution of basic soil types in The Netherlands. • Learning about the development of mining, agriculture, industry and the service industry in The Netherlands and in some major countries in Europe. • Understanding the development of The Netherlands in a broader context (migration, EU, Eastern Europe). • Describing and comparing everyday life in The Netherlands to other parts of the world. • Describing the basic climactic zones on Earth and how they affect people, landscape elements in mountainous regions and the influence of relief on the lives of people, animals and plants.
Domain of topography and maps	• Recognizing different landscape elements on maps of The Netherlands, Europe and the world, depending on the scale of the maps.

In the cycle of compulsory primary education schools determine their own schedules for subjects by drafting an annual plan. In compulsory lower secondary education geography is taught for 140 teaching periods per year.

The conditions for teaching geography are not prescribed and schools have the freedom of choice in the matter. However, it is recommended that modern technology be used.

Group E: Germany[24]

In Germany, geography is taught through a subject called *Geography.* In the first educational cycle (ages 6-10/12) geography is taught as a part of an interdisciplinary subject called *Sachunterricht* , whereas in other cycles *Geography* is an independent subject taught in three cycles of compulsory education. The first cycle (primary school – *Grundschule*) is a unified type of school throughout Germany, attended by children ages 6-10 in 16 federal states and 6-12 years of age in the remaining 4 federal states, usually organized into 4 (sometimes 6) grades. Within the framework of that first cycle, geography is taught within an interdisciplinary subject called *Sachunterricht* (combining natural and social areas), which is an introduction to the future division into separate subjects. The second cycle, or lower secondary school (*Mittlerer Schulabschluß*), includes different types of schools (usually the choice of parents according to the student's attainments in the first cycle of schooling): *Hauptschule, Realschule, Gesamtschule* and *Gymnasium*. It is attended by students aged 10 (12) to 15/16, organized into 6

24 http://www.inca.org.uk/comparative.asp (comparison of school systems and curricula in selected European countries)
http://www.bildungsstandards-bw.de/ (educational standards for grammar school – example Baden-Würtemberg)
http://www.gdg-stuttgart.de/schulprogramm/schulpro.htm (example of a school program from a second cycle school in Stuttgart)

(or possibly 5) grades. In that second cycle *Geography* is taught as an independent subject. The third cycle or higher secondary school is attended by students aged 15/16 to 18/19 and can be a higher grammar school (*Gymnasiale Oberstufe*) attended by 16-19 year-olds or vocational secondary school (*Berufsschule and Fachoberschule*). In this third education cycle *Geography* is also taught as an independent subject. It is compulsory in the second cycle (5-10 years of education), while in the third cycle (11-13 year of education) it is one of the electives in the social studies group of subjects. The content of geography is placed in the curricular area of social studies.

In Germany, the curriculum contains only the basic guidelines with 70% of the content being prescribed, while schools determine the remaining 30%. School boards determine the syllabus according to grades. Teachers adapt the implementation of the syllabus to students according to their age and interests. At higher levels, more emphasis is placed on independent work of students. The principles of moving from closer to farther, from the familiar and local to the less familiar, regional or global are implemented.

Aims and expected students' attainments in geography in Germany	
Aims of the subject and attainment targets at the end of cycles 2 and 3	• Knowing natural and human conditions in various world regions, understanding the characteristics of living space. • Knowing and understanding the basic natural geographical and geological processes and cosmic phenomena. • Developing the abilities for spatial orientation and reading maps. • Acquiring basic knowledge of social and economic systems, such as agriculture, industry, trade and services, energy, communications, tourism, waterworks and traffic. Becoming acquainted with the basic economic structures and processes and how they affect localities, with special emphasis on interest conflicts and uneven regional development. • Understanding contemporary phenomena and processes in the world, such as demographic dynamics, ethnic conflicts, globalization, global disparities, migration, ecological issues, managing resource, etc. • Knowing and understanding various spatial realities, i.e. the evaluation of space from various aspects, understanding spatial issues. • Encouraging the development of democratic and tolerant viewpoints and responsible decision-making regarding important issues. • In the spirit of multicultural education, understanding the equality of nations and their cultures, understanding the wealth of social diversity. • Understanding the finite possibilities of natural resources, developing responsibility for the future of mankind and for the possibility of sustainable development for all people on Earth. • Becoming acquainted with the instruments of zoning and spatial planning possibilities. • Developing students' responsibility in their personal, business and public activities. • Developing a network (vernetzend) of opinions geared towards problem-solving, practical solutions, methodological and media competence.

In Germany, in the first cycle there is no clear definition of teaching periods for individual subjects. However, all subjects must meet the prescribed requirements. One teaching period lasts 45 minutes. The overall schedule is 19 to 28 teaching periods per week and includes classes in German, mathematics, *Sachunterricht*, art, music, sports and religion.

The second cycle (grades 5-10) is characterized by variation, depending on the type of school and the school-based curriculum. However, all subjects must meet the set requirements. Namely, curricula are passed on the federal state level and include geography as a compulsory subject in all types of school (*Hauptschule, Realschule, Gesamtschule and Gymnasium*). However, the curricula do not prescribe a schedule for geography but rather the necessary content that needs to be covered. It is common among federal states to determine a minimum of teaching – for the social studies group of subjects a minimum of 2-3 teaching periods per week has been set. Depending on the types of school, as well as on their conditions, needs and choice, schools are allowed to design their own syllabi. With respect to that, schools determine how they will organize the teaching of, for example, social studies subjects, i.e. the schedule of (usually compulsory) individual subjects. In most cases this is no less than one teaching period of geography per grade per week, i.e. 8-9 teaching periods through six grades[25].

The conditions for teaching are determined by the federal states. In general, appropriate facilities and classroom size are prescribed, as well as teaching materials and aids that allow for the visualization of teaching content. The use of modern computer technology is encouraged along with geographical sources like satellite photos and aerial photos. Field work is also encouraged.

The federal assessment system comprises six levels: 1 – *Sehr gut* (very good), 2 – *Gut* (good), 3 – *Befriedigend* (satisfactory), 4 – *Ausreichend* (enough) 5 – *Mangelhaft* (lacking) and 6 – *Ungenügend* (unsatisfactory).

Teachers continually assess students based on in-class observation, as well as through oral, written and practical work, homework and tests in individual subjects.

A look at the Curriculum for teaching Geography in Croatia

The organization of geography teaching in Croatian schools is similar to those analyzed European systems that have it as an integrated subject in lower primary school grades and as an independent subject in higher primary school grades, as well as in vocational secondary schools and grammar schools.

25 A typical example from Baden-Würtemberg (a total of 8 teaching periods in 6 grades): grades 5, 6 and 7 have 2 teaching periods per week, grade 8 has 1 class hour per week, while grades 9 and 10 have 0.5 teaching periods per week in geography. One teaching period lasts 45 minutes. Regardless of the school type, as a rule, grades 5-6 have 28 teaching periods of compulsory and compulsory elective subjects, while grades 7-10 this is 30 teaching periods per week. In case of a five-day work week there is an average of 188 days of teaching periods per year.

In the Croatian curriculum for primary school, geography has a prescribed weekly schedule, teaching content and general goals. Unlike in most of the analyzed European countries, The Croatian National Education Standard (HNOS) has reduced the autonomy of schools and teachers. Besides prescribing compulsory subjects, elective themes and the proposed number of teaching periods, the Standard contains guidelines about the expected outcomes for every teaching unit with the necessary background knowledge, key words, scientific vocabulary and numerical information that the students are expected to acquire. Along with the contents that should be left out, there are additional contents, as well as elective contents and examples of correlation. As opposed to European curricula, the HNOS contains recommendations regarding the way of teaching, "additional illustrations", proposals for working with students with special educational needs, educational and socialization goals and content of teaching. While the analyzed curricula pay great attention to determining the purpose and aims of a subject, students' attainments per grade or educational cycles, as well as cross-curricular themes, in Croatia this is not part of the Croatian curriculum or the HNOS. In the process of preparation of Croatian national curricula both European experience and Croatian teaching tradition have to be respected. Firstly, it is necessary to clearly define general aims and final attainments of education, followed by aims of certain areas and subjects. In Croatian national curricula Geography must remain compulsory and independent subject thought in at least four grades of compulsory primary education for at least two hours per week. By the selection of cross-curricula topics horizontal correlation and integration of teaching content has to be achieved. Only by doing so will students attain holistic knowledge and skills for life and long-life learning Without clearly defined aims of education as a whole, without a real interdisciplinary approach and without clear criteria for the evaluation of the teaching process and of students' attainments, there is no clear where Croatian education is headed. The disburdening of students without prior competent assessment of the real burden does not lead to the desired result, but rather to an additional obsession of students with grades.

Conclusion

The paper analyzes the basic characteristics of geography curricula in 11 European countries. Geographical content is part of the curriculum in all 11 countries (Ireland, England, Scotland, Sweden, Finland, Norway, Austria, Hungary, Slovenia, Germany, The Netherlands). The geography curriculum is an important segment of school and of the national curricula for compulsory education in all the analyzed countries., The analyzed curricula were divided into three groups according to certain similarities in approach, while the geography curricula of The Netherlands and Germany were analyzed separately. The first group includes Sweden, Finland and Norway, the second group features Ireland, Scotland and England, while group three includes Austria, Hungary and Slovenia.

The name *Geography* is used for the subject in Slovenia, Germany, The Netherlands, Scotland, England, Ireland, Norway, Sweden and Finland. In Hungary, geography content is taught as a subject called *Earth and our environment,* while in Austria it is called *Geography and economy.* In Norway, besides *Geography* there is also a subject called *Natural diversity* that also contains geographical content. Geography is compulsory as an independent or integrated subject in all the studied curricula and it is taught in no less than two cycles (from 4 to 11 years of education).

In 6 out of 11 analyzed European countries (Austria, The Netherlands, England, Hungary, Scotland and Slovenia) geography is organized as an independent subject. In the first cycle of education geography is most frequently an integrated subject. In the second cycle of compulsory education geography is an integrated subject in Sweden, Finland, Norway and Germany, whereas it is taught as a separate subject in higher cycles. A completely different situation has been observed in Ireland, where geography is an independent subject in primary school, while in *Post-primary education* (grades 7, 8 and 9) it is taught together with history as a joint subject.

Croatian geographers frequently emphasize the bridging role of geography in connecting natural sciences and social studies. Confirmation for this theory is offered by this comparative analysis. In eight countries geography is placed in both the natural sciences and social studies curricular areas (Slovenia, Norway, Scotland, Austria, Ireland, England, The Netherlands, Hungary), in two countries (Sweden and Germany) only in the social studies area and in one country (Finland) only in the natural sciences area. Especially the English curriculum emphasizes the role of geography in linking the natural sciences and social studies areas.

In the description of the subject in the studied curricula emphasis is laid on the significance of geography in learning about living space, on the role of geography in basic education, on the importance of its being current, as well as on developing educational values that will enable students to take active roles in the community. In most curricula the aims of teaching geography are grouped into three areas: acquiring knowledge, developing abilities and skills, and developing educational values. All the countries point out the following goals in their curricula: the skill of understanding and explaining geographical processes at the local, regional, national and global scale, acquiring knowledge about the natural and social geographical characteristics of their countries, acquiring knowledge about natural and social geographical phenomena and processes at a global scale and understanding their interrelationship, understanding the way global processes affect society and understanding issues resulting from uneven development. Also vital is the knowledge and awareness about the importance of environmental protection, about rational use of energy sources, the importance of sustainable development and of cooperation in environmental protection in the world, the awareness about the dangers of inappropriate use of technology for the environment and

the possible consequences of such actions. The curricula of all European countries emphasize the following as the most important educational values: the importance of national minorities in society, rejecting prejudice, accepting diversity among nations and cultures and developing multiculturalism. Students are stimulated to participate actively in acquiring knowledge, developing creative and critical thinking, learning to use scientific methods and developing working habits. Along with these goals, Scandinavian countries and Ireland also place special emphasis on the need to stimulate students to take active part in the lives of their local communities, thus creating active citizens who will take responsibility in decision-making.

In all countries the accent is on making teaching content current and using various teaching methods and forms of work. Furthermore, it is vital to stimulate students to use various forms of work, such as independent work and investigation, pair work, group work, discussion, field work, project teaching, learning though the process of teaching. Students are motivated to prepare independent presentations, write essays and prepare posters and projects. Particular emphasis is placed on the need to connect the acquired geographical knowledge with other subjects in order to give students holistic knowledge and understanding.

From the information obtained from the analyzed curricular documents of 11 European countries it was not possible to find an exact schedule for geography in all countries. The reason for this is the organization of geography teaching in certain countries and the fact that the curricula in some countries determine the number of teaching periods for subject groups, whereas schools determine the exact schedules for each individual subject. Thus, for example, in Sweden, the government prescribes only the minimum number of teaching periods for each subject during nine-year education and the educational outcomes that must be reached by the end of grades 5 and 9. In Norway, the overall number of teaching periods is determined for the curricular area of social studies, which includes geography: in lower primary school (grades 1-4) a total of 190 teaching periods, in higher primary school (grades 5-7) a total of 285 teaching periods and in lower secondary school (grades 8-10) a total of 380 teaching periods. In Ireland, the National Board gives a recommendation regarding the minimum number of teaching periods for individual subjects. The highest level of autonomy is given to schools in The Netherlands where schools in the framework of compulsory education decide independently on the schedule of subjects when drawing up their annual operative plans. In England, the number of teaching periods for geography per week, or year, is the decision of the teacher, and it is important that the themes, i.e. units foreseen in the curriculum be covered within a certain stage (*Key Stages 1-3*). Similarly, in Germany, the schedule for individual subjects is not uniformly defined for the first cycle of education. However, subjects have to meet the prescribed goals. The curricula of higher education cycles do not prescribe the number of teaching periods of geography either, but they contain the content that needs to be covered. There is a defined minimum of 2-3 teaching periods per week for the whole social studies

area in all German federal states. In Scotland, the ratio is expressed in percentages – in primary education 15%, while in lower secondary school (over a two year period) it is 30% of the total of teaching periods for the natural science curricular area (also including geography). The number of teaching periods for geography is precisely defined on a weekly and yearly basis in Austria, Slovenia and Hungary.

The duration of a teaching period also differs from country to country and according to education cycle. In Germany and Norway a teaching period is 45 minutes. In Ireland in p*rimary school education* one teaching period is 30 minutes. In the framework of *post-primary education* – Junior cycle, one teaching period is between 35 and 45 minutes. In Sweden, one teaching period is 60 minutes. For the other countries it was not possible to determine the exact duration of a teaching period from the available documents.

The selection of methods, materials, aids and the organization of the teaching process are the teachers' responsibility in Sweden and Slovenia. General recommendations are made in Finland, Norway, Ireland, Austria and Hungary. Methodological guidelines are not particularly pointed out in Scotland. In England and The Netherlands, they are determined by each school, while in Germany it is at the level of the federal state.

There are substantial differences among the studied countries in the segment of evaluation and assessment. In some curricula there is no mention of evaluation, some prescribe levels of grading, while some only provide general instructions.

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